Supreme Court of the United States.

OCTOBER TERM, 1899.

No. 96.

WILLIAM WHEELER HUBBELL, APPELLANT,

v.

THE UNITED STATES.

AND

OCTOBER TERM, 1897.

No. 198.

WILLIAM WHEELER HUBBELL, APPELLANT,

v.

THE UNITED STATES.

Appeals from the Court of Claims.

REPLY BRIEF OF APPELLANT.

MISTAKEN STATEMENT.

Beside the *mistaken statement* that the "facts found in cases No. 198 and No. 96 by the Court of Claims are the same," as shown by the two records to be a mistake,—

The opinion of the Supreme Court in No. 198 contains a reservation and exception, to wit :

"It only remains to consider, then, whether any proceedings taken in the Court of Claims since the dismissal of such petition deprived its judgment of its character as an estoppel."

The record of that case is now before this court, and it, on comparison with the record of No. 198, shows that the same state of facts did not exist as found by the court in both cases; that the court made two sets of amendments on hearing the cases together, and filed them only in case 198 and not in case 96, although repeatedly urged so to do; and some of them correcting errors in the former statements of fact, others adding new explanatory facts, and others correcting errors in dates, all of which are very material in a patent case as matters of law. The court did not correct its errors as to all recitals, and the true legal interpretation of the patent. The case 198 was a completed case, while the case 96 was still open to the court's "consideration and such action as it might find just" by special order of court made and filed only in case No. 96, hence No. 198 became first perfected and first appealable, and first allowed by the court below. The defendant should have produced a certified *copy* of the record of No. 96, and not simply stated its contents erroneously in surprise of the claimant, without plea or notice. The Court of Claims misconstrues the Hubbell patent altogether, and the court was not unanimous. The Chief Justice at present did not assent.

On the last argument he distinctly told the defendant's special attorney that the patent was for a combination and the defendant was charged with using it. And what had he to say to that? And he said nothing to that.

The certified docket entries in case No. 96 show that on the 14th of Dec., 1885, no such entry was made as stated in the proceedings stated in case 198, of the same date; and the orders of the court now certified being the cases stated as exceptional in the opinion of Mr. Justice Brown, and explain how the Supreme Court was misled, and the claimant taken by surprise in the case No. 198, and that there were three motions made, not only one as stated:

1. For new trial.
2. For amendment of findings.
3. For reversal of judgment.

And that only No. 1 had been disposed of, and an order of court made and amended for further action and consideration by the court reserving the right to take further proceedings as it might find just, and allowing the same testimony, and replies of War Department, to be used in both cases at the same hearing together.

The cup anvil claim was expressly withdrawn in both case 13,793 and 16,261 and allowed by the court. (See amendment of order, p. 31.)

The System and Functions of the Hubbell Patent 212,313.

The Hubbell patent is to use fulminate to create fire, and convey the fire to a powder charge at the base of the charge, that it shall burn in a *forward* direction as it explodes. It is a perfecting of the American system of a paper cartridge, as distinguished from the German and French system of firing the charge at the base of the bullet, so that it burned *backward* towards the breech of the needle gun of the German army and Chasspot gun of the French.

The American system of burning the powder in a forward direction from the base or breech was in the *old paper*

cartridges of the war of 1776 and the war of 1861–5, and is not claimed in the Hubbell patent claim. The claim is confined to the construction and combination of—

1. The solid flange case of metal.

2. The circular fulminate carrier, and

3. The circular perforated plate anvil of metal, inclosed above the fulminate, and held with tight jointure; to be indented, and ignite the fulminate, and admit its explosive fire out of the fulminate chamber in the base of the cartridge, or *rear* of the anvil, through it, and into the base of the powder charge in *front* of the anvil, "the charge being consumed from the base forward without reaction of the fire or waste of the powder," and "this assures a certain ignition, security of the anvil plate to keep its position, and a complete combustion of the powder charge from the base forward, as it impels the bullet out of the gun." (See patent.

P. 28–29, Transcript:

"F is the space in the cartridge, which is loaded as *usual* with a charge of powder and bullet of any desired weight and shape.

"The fulminate chamber C may be recessed or formed in the *metal* of *the circular plate* E, with the central bar *i* and two side perforations KK over it, dispensing with the paper. The central anvil affords a firm resistance to a central striker acting on the center of the base L, and compressing the fulminate to ignite it with certainty.

"The two side vents diffuse the fire into the base of the charge of powder, and its instant explosion presses back the circular anvil plate, and prevents it from being blown out in the barrel, the charge being consumed from the base forward without reaction of the fire or waste of the powder."

And p. 29, Transcript:

"This assures a certain ignition, security of the anvil

plate to keep its position, and a complete combustion of the powder-charge, from the base forward, as it impels the bullet out of the gun.

"This mode of construction also embraces the three parts of the combination in metal. Having thus described my invention, what I claim *as new*, and desire to secure by letters patent, is—

"In the bottom of a solid metallic flange cartridge case or shell, the combination of a circular base inclosing a central chamber of fulminate and an anvil over the fulminate provided with two or more openings, whose inner edges *nearly* coincide with the edges of the central chamber of fulminate in the base of the cartridge, substantially as described."

Thus amended the claim agreed with the second paragraph of the specification.

This part of the specification expresses the functional principle of an inclosed flat-based metallic cartridge containing bullet powder charge, and fulminate, to load rapidly into the breech of a gun, and fire by a pointed indenting striker first igniting the fulminate, which fires the charge of powder at its base and it burns forward in direction as it impels the bullet before it out of the cartridge case, and out of the gun; and the Exhibit Drawing of Feburary 8, 1842, found by the court shows it as invented then by Hubbell for a machine rapid-fire gun.

Fulminate is a detonate and explodes instantly, and is instantly released from its centre of ignition at the bar *i*, centre, in the fulminate chamber, not diffusing itself through a central perforation, as such perforation would prevent its ignition; but from this centre of the bar, *i*, each way through the side openings, with free escapement through the openings, *burning any priming* in *them, and into the base* of *the powder charge*, or rear end of the charge, which charge of powder instantly exploding by the

intense fire of the fulminate present, progressively burns from the circumference of its grains to their centres as it impels the bullet from the cartridge and out of the gun.

Gunpowder burns progressively; fulminate burns instantly with detonating power; all as comprised in the language of the patent (p. 29). "Priming" is only that part or grains of the powder charge which descend into the vents, and is *not* "*fulminate*." To fire the charge at the base in the cartridge case is the Hubbell system of firing, first contained in his cartridge of February 8, 1842. Exhibit Caveat filed April 13, 1865, and in their application both with anvil chamber 1842, and anvil separate "1858" filed April 13, 1865, afterwards perfected into a tight jointure system, January 17, 1872, proportioned in 1874 and 1878, and perfected in 1878 in diameter of chamber, and anvil face, bar *i*, and ventage in a cartridge with solid flange and metal case, and also a fulminate carrier separate, all combined constituting the cartridge as used by the defendant, patented to Hubbell February 18, 1879.

As well known, the needle gun of the Prussians burned its charge from the base of bullet carrier, backward to the breech of the gun, in a paper case.

The Hubbell system of burning the powder from the base forward towards the bullet is far superior, in its inclosed case with fulminate, all to load at the breech at one insertion together; and Hubbell both first invented the parts, and also first practically combined the parts, and how to fire them by a compressing striker.

Science of Description as Well Known.

There is no law of gases but one of "*diffusion*"; gas does not concentrate itself, hence the patent and Patent

Office are right in its allowance; and the Court of Claims is in error in its opinion that Hubbell in 1865 *concentrated* the gas. At that time the central vent in an annular anvil was for a gun with *oblique* motion of firing pin, and the two vents with central bar *i*, was for a gun with *axial* motion of firing pin. Hubbell had both guns and both anvils, centre fire, so called, as contradistinguished from rim fire; and shown in the Exhibit 1858 to the application of April 13, 1865, as found in the Amendment of Findings of Court filed in the case No. 198 (16261).

The "openings" of the anvil face, one each side of the bar, are for free escapement. (See original drawing filed and certified in Transcript.)

Paper and tin-foil do not obstruct fulminate fire, they are well-known keepers of fulminate; and their transverse extensions in both modified forms of Hubbell and of defendant's cartridge, are *channels* leading to the seat of the charge, and allowing its powder or priming to come by *gravity* in its descent in loading them, close to the openings of the fulminate in its chamber, in *rear* of *the anvil face.* The openings, in fact, in all three are wholly over the fulminate; and their inner edges curve from the sides of the carrier towards the center, and back again; nearly agreeing or nearly coinciding in mechanics with the walls of the sides; resulting in the firm bar *i*, in the middle, to secure an explosion of the fulminate, and a free escape forward of its fire. The fulminate and its devices are first secured in the bottom of the case before it is loaded and primed with powder and bullet; never afterwards, as it would be unsafe, and might accidentally explode. (Fig. 1 of patent.)

The "openings" and channels are practically wholly over the fulminate chamber, also the anvil bar, also the circular anvil face with its thick edges, and transverse strength

holding the carrier or cup in water and fire tight jointure to the walls of the case. And the functions in all three are identically the same, to create and convey fire to the powder.

The claim of Hubbell, however, is confined to the firing devices of the fulminate. The "priming" of the charge in front of the anvil gives the same function usual in all American guns, and is not in the claim.

"No central stream from fulminate chamber" is added, to "*distinguish*" from Patent Office references of Howe's wafer across, with central conical vent, small, and no central chamber, no central anvil, but a side rim anvil with central stream out of the fulminate chamber across the body of the case; and from Smith & Wesson's plate across the case, with central hole and pellet in it, and space clear across the diameter of the case, both for cylinder pistols and experimental. (Exhibit Bartlett and Gallatin found.)

"Diffuse" is the law of motion of gas, and only law.

The gun shoots by diffusion of its gas generated by its fire "into the base of the powder charge" from the base forward as it impels the bullet out of the gun" (p. 29, Transcript).

In Conclusion.

The two openings through the anvil discharge the fulminate fire together, in the front of the anvil, between the edges of the overlap or "*contraction*" of the case, in front of the anvil; the two streams of fire come together into the base of the charge of powder with its priming, burning it, the powder, forward as it impels the bullet out of the gun; both in the defendant's cartridge, and as specified in the Hubbell patent; and by means of the same combination of *solid flange case, circular fulminate carrier, and plate anvil*, embraced by the claim of the

patent and with certainty of fire, and instant effect as specified in the patent (p. 28–29).

The defendant's version of the specification (p. 21 of Brief) would not constitute a combination at all, and would be impracticable for a cartridge, in the making, in the keeping, and in the use. It would not have the separate circular fulminate carrier held in tight jointure by the anvil.

As to *laches*, so alleged by the defendant, it is not a "promotion of science, by securing the inventor," reposed in the United States specifically and exclusively, by the Constitution of the United States.

The defendant appointed Mr. Douglass and Mr. Whitman, who were claimant's counsel in case 13,793 and 16,261, to offices,—Douglass as District Commissioner, and Whitman as in charge of the Bell Telephone case,—who thereby became disqualified to remain claimant's counsel, and consequently resigned, and requested to be released, causing claimant a loss of several years of time and his labor in instructing them in the science of his invention.

He then engaged Judge Pettis, who became injured accidentally and out of health, and was released as counsel. He then appointed Mr. Boutwell, who moved afterwards away to Boston. He then appointed Mr. Dewees, who lost his health and died, and finally engaged Mr. McKenny with Mr. Boutwell.

Thus it is that the acts of the defendant and of Providence caused him delay. Also, the defendant was never ready to argue the case, until the two were consolidated and argued, and the defendant's special counsel informed the court that he did not understand the proposed amendments filed by claimant, and filed no exceptions to them, nor any objections. Mr. Whitman also had died; also Chief Justice Richardson died.

The orders of the Court of Claims as to amendments and

as to the appeals all came within the rules and practice laid down by the Court of Claims and the Supreme Court. And there was no delay because of any action nor of omission by claimant.

The judgment of the Court of Claims was not with the concurrence of the present Chief Justice; the defendant's special attorney is in error in saying it was unanimous.

The appeals to this Supreme Court, first of No. 198 and after of No. 96, were completed and allowed in the same order of precedence as completed under the orders and allowances of the Court of Claims, and as made ready finally for appeal respectively without delay, on completion, and now as one case are here together.

WM. WHEELER HUBBELL,
Attorney and Claimant.

The amended finding XII of the Court of Claims establishes the superiority as follows (No. 198, p. 22):

"Owing to the juxtaposition, construction, arrangement, and combination of its parts, this cartridge was best adapted to receive with *certainty of fire* the blows of the striker in the Springfield gun."

The Hubbell patent says: "The fulminate chamber C may be *recessed* or formed in the *metal* of the circular plate E (pars. 6–8), with the *central* bar *i*, and two *side* perforations *k k over it* (the fulminate chamber), dispensing with the paper. The central anvil affords a firm resistance to a central striker acting on the center of the base L, and compressing the fulminate to *ignite it with certainty*. The two side vents diffuse the fire into the base of the charge of powder," and "this assures a *certain ignition*, security of the anvil plate to keep its position, and a *complete combustion* of the *powder charge* from the base *forward*, as it impels the bullet out of the gun."

The Hubbell patent and the amended finding XII (p. 22) as corrected to 1879 on p. 23 agree on the superiority of the cartridges in construction and combination to be *certainty* of *fire*, and *identical* in *make* and *results*, a cartridge that *never fails*.

WM. WHEELER HUBBELL.